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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/488,129	01/20/2000	Patrick W. Mullen	1571.1144001	3992

21005 7590 11/20/2003

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EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/488,129

Applicant(s)

MULLEN ET AL.

Examiner

Alicia Chevalier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2003 and 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6, 11-15, 18, 22-27 and 29-49 is/are pending in the application.
- 4a) Of the above claim(s) 34-43 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 11-15, 18, 22-27, 29-31 and 49 is/are allowed.
- 6) ☒ Claim(s) 32, 33, 44 and 46-48 is/are rejected.
- 7) ☒ Claim(s) 45 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**RESPONSE TO AMENDMENT**

***WITHDRAWN REJECTIONS***

1. The 35 U.S.C. §102 rejections in paper #16, pages 3-4, paragraphs #7 and #8 has been withdrawn due to Applicant's amendments in paper #20.
2. The 35 U.S.C. §102/103 rejection in paper #16, page 4, paragraph #10 has been withdrawn due to Applicant's amendments in paper #20.
3. The 35 U.S.C. §103 rejections in paper #16, pages 5-8, paragraphs #11-13 has been withdrawn due to Applicant's amendments in paper #20.

***NEW REJECTIONS***

4. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

***Claim Rejections - 35 USC § 102***

5. Claims 44, and 46-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Benson et al. (6,287,670).

Benson discloses a retroreflective material comprising open-faced cube-corner surfaces having an optical coating thereon, the coating retroreflecting light incident thereon such that light does not pass through the material (col. 1, line 13 bridging col. 2, line 63 and figure 2). The cover layer can incorporate dyes, colorants or the like (col. 7, lines 24-39). The material further comprises a fill layer attached to at least a portion of the optical coating with a refractive index of

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about 1.5 (col. 11, line 35 bridging col. 12, line 56). The open-faced cube corner surfaces include different size surfaces on the material (figure 2).

The preamble language “chip” is not further limiting in so far as the structure of the product is concerned.

***Claim Rejections - 35 USC § 103***

6. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benson et al. (6,287,670).

Benson discloses a retroreflective material comprising open-faced cube-corner surfaces having an optical coating thereon, the coating retroreflecting light incident thereon such that light does not pass through the material (col. 1, line 13 bridging col. 2, line 63 and figure 2). The cover layer can incorporate dyes, colorants or the like (col. 7, lines 24-39). The material further comprises a fill layer attached to at least a portion of the optical coating with a refractive index of about 1.5 (col. 11, line 35 bridging col. 12, line 56). The open-faced cube corner surfaces include different size surfaces on the material (figure 2).

The preamble language “chip” is not further limiting in so far as the structure of the product is concerned.

Regarding claim 32, the exact length of the retroreflective material is deemed to be a cause effective variable with regard to the intended use. It would have been obvious to one having ordinary skill in the art to have determined the optimum value of a cause effective variable such as length of the retroreflective material through routine experimentation in the absence of a showing of criticality in the claimed length. *In re Boesch*, 205 USPQ 215 (CCPA

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1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). One of ordinary skill in the art would have been motivated to optimize the length of the material in order to have to fit the intended uses need.

***Allowable Subject Matter***

7. Claims 1-6, 11-15, 18, 22-27, 29-31 and 49 allowed.
8. Claim 45 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***REASONS FOR ALLOWANCE***

9. The following is an examiner's statement of reasons for allowance:

The prior art fails to teach or suggest the recited retroreflective sheeting. The structural limitations that overcome the prior art of record include a sheeting comprising a plurality of open-faced cub-corner surfaces, a second plurality of open-faced cube-corner surfaces opposing the first open faces cube-corners and a reflective coating disposed on at least a portion of the first and second open-faced cube-corners having light incident on the optical coating being retroreflected without passing through the sheeting.

10. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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***ANSWERS TO APPLICANT'S ARGUMENTS***

11. Applicant's arguments in paper #20 regarding the 35 U.S.C. §102, §102/103 and §103 rejections of record have been carefully considered but are moot since the rejections have been withdrawn.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Malek (4,712,867) discloses a similar retroreflective material.

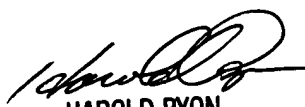
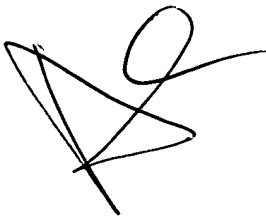
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (703) 305-1139. The Examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:00 p.m. The Examiner can also be reached on alternate Fridays

If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Harold Pyon can be reached by dialing (703) 308-4251. The fax phone number for the organization official non-final papers is (703) 872-9306. The fax number for after final papers is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose phone number is (703) 308-0661.

ac

11/17/03



HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
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